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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,222

09/10/2003

Gelu Voicu

CAT-12502-1

7704

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11/30/2005

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EXAMINER

LAUTURE, JOSEPH J

ART UNIT

PAPER NUMBER

2819

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/660,222

Applicant(s)

VOICU ET AL.

Examiner

Joseph Lauture

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 37-113 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-77 and 86-113 is/are allowed.
- 6) ☒ Claim(s) 78-82 is/are rejected.
- 7) ☒ Claim(s) 83-85 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 32105.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

The application has not been checked to the extent necessary to determine the presence of all possible typographical and grammatical errors. Applicant's cooperation is requested in correcting any errors of which he/she may become aware in the application.

The Information Disclosure Statements filed 03/21/2005 have been considered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 78-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rivoir et al (US 5,703,588) in view of Dempsey (US 6,414,616).

Rivoir et al teach in figure (6) a circuit having a first reference terminal and a second reference terminal, and a plurality of impedance devices  $R_c$  connectable by switches between the first reference and the second reference terminals, and first and second structures (51) and (53), each selectively connected to one of the impedance devices, wherein each impedance device can be bypassed by a switch and each structure can be bypassed by the switches.

Rivoir et al do not specifically teach a circuit wherein a permanently-on switch connects an impedance device to a structure. However, the use of such switching

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devices to control signal flow are well known in the art, as evidenced by Dempsey.

Dempsey teaches an architecture for a voltage scaling DAC, wherein a permanently-on switch (See column 5, lines 39-41) connects the end of a ladder network to a circuit component. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dempsey into the system of Rivoir et al to improve system performance and reliability because that would broaden the range of applications for the circuit (See column 2, lines 39-43).

***Allowable Subject Matter***

Claims 83-85 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 37-77 and 86-113 are allowable.

**Reasons For Indicating Allowability Of Subject Matter**

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fail to teach an N-bit digital potentiometer including  $2^N$  wiper addresses, the potentiometer comprising inter alia first and second bulk impedance devices each of an approximately same impedance greater than an impedance of a first string, wherein the first string, the first bulk impedance device and the second bulk impedance devices are coupled between a first and a second reference terminals.

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### CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Lauture, whose telephone number is (571) 272-1805. The examiner can normally be reached Monday to Friday between 9:30 am and 6:00 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached at (571) 272-7492. The fax number for the organization to which this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Joseph Lauture  
Art Unit: 2819  
Date: 11/25/2005

  
PEGUY JEANPIERRE  
PRIMARY EXAMINER